

In the Claims:

1. (Currently Amended) A process for producing an aluminum or an aluminum alloy metal foam in a die-casting machine comprising a shot-sleeve ~~or short-chamber~~ and a die cavity which comprises foaming a mixture comprising an aluminum or an aluminum alloy metal melt and magnesium hydride as a blowing agent in the die cavity, ~~whereby the blowing agent is solid at room temperature.~~

2. (Currently Amended) The process according to claim 1, wherein the mixture comprising the aluminum or an aluminum alloy metal melt and the blowing agent is formed by introducing the aluminum or an aluminum alloy metal melt and the blowing agent into the die cavity at the same time.

3. (Currently Amended) The process according to claim 1, wherein the mixture comprising the aluminum or an aluminum alloy metal melt and the blowing agent is formed before introducing the mixture to the die cavity.

4. (Currently Amended) The process according to claim 3, wherein the mixture comprising the aluminum or an aluminum alloy metal melt and the blowing agent is formed in the shot-sleeve ~~or short-chamber~~ and is then introduced to the die cavity.

5. (Cancelled).

6. (Cancelled).

7. (Currently Amended) The process according to claim 1, wherein the die cavity is filled with the mixture comprising the aluminum or an aluminum alloy metal melt and the blowing agent before foaming said mixture.

8. (Cancelled).

9. (Original) The process according to claim 1, wherein the die cavity is underfilled by a defined volume.

10. (Cancelled).

11. (Cancelled).

12. (Cancelled).

13. (Cancelled).

14. (Original) The process according to claim 1, wherein the process is a cold-chamber process.

15. (Original) The process according to claim 1, wherein the process is a hot-chamber process.

16. (Cancelled).

17. (Cancelled).

18. (Cancelled).

19. (Original) A metal body obtained by the process according to claim 1.

20. (Original) The metal body according to claim 19, which is a component for a vehicle.

21. (Currently Amended) The metal body according to claim 20 ~~claim 19~~, wherein the metal in the component is an aluminium ~~aluminum~~ alloy.

22. (Currently Amended) The metal body according to claim 19, which has a surface which is closed on all sides and a foam ~~hollow~~ structure in the interior.

23. (Currently Amended) A metal body which has a surface which is closed on all sides and a foam ~~hollow~~ structure in the interior.

24. (Currently Amended) ~~The A process according to claim 1 wherein for producing a metal foam in a die casting machine comprising a sleeve or shot chamber and a die cavity which comprises foaming, in the die cavity, the amount of magnesium hydride used is a metal melt~~

~~and from about 0.01 to about 10% by weight, based on the aluminum or an aluminum alloy metal melt, and at least one blowing agent, whereby the blowing agent is solid at room temperature.~~

25. (Currently Amended) The process according to claim 24, wherein the amount ~~amout~~ of blowing agent is from 0.01 to 10% by weight, based upon metal melt.

26. (Original) The process according to claim 24, wherein the amount of blowing agent is from about 0.1 to about 10% by weight based upon metal melt.

27. (Cancelled).

28. (Cancelled).

29. (Currently Amended) The process according to claim 1 ~~claim 27~~, wherein the magnesium ~~light-metal~~ hydride is autocatalytically produced.

Claims 30-45 (Cancelled).

46. (New) A process for producing an aluminum or an aluminum alloy metal foam in a die-casting machine comprising a shot-sleeve and a die cavity which comprises foaming a mixture comprising an aluminum or an aluminum alloy metal melt and magnesium hydride as a blowing agent in the die cavity at a pressure at or greater than approximately 10^7 Pa.

47. (New) The process according to claim 46 wherein the pressure is between 10^7 Pa to 10^8 Pa.